TPC-155H

15" XGA TFT LED LCD Thin-Client Terminal with Intel® Atom™ Processor and UL Class 1 Division 2

Features

- Industrial-grade 15" XGA TFT LCD with 70K lifetime and LED backlight
- Intel® Atom™ E3845 1.91 GHz quad-core processor with 4 GB DDR3L SDRAM and 64G SSD
- In-cabinet Design with True-flat touchscreen with 5-wire resistive touch control and IP66-rated front panel
- UL C1D2 certified HMI for Hazardous environments
- Wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F)
- Front-facing LED indicators to show operating status
- Advantech iDoor technology and SSD/HDD bay
- Compact, fanless system with aluminum alloy front bezel and chassis grounding protection
- Supports VESA mount (100 x 100 mm)
- Supports Advantech's SNMP Subagent software
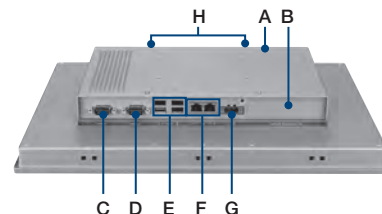- Supports Advantech's WISE-PaaS/RMM remote management software

Introduction

The TPC-155H thin-client terminal is equipped with a 15" XGA TFT LED LCD, low-power Intel® Atom™ E3845, 1.91GHz, quad-core processor, 4 GB DDR3L SDRAM and 64 GB SSD, TPC-155H delivers high-performance computing in a compact, fanless system. For enhanced durability to satisfy diverse industrial automation applications, TPC-155H supports a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F) and features a true-flat 5-wire resistive touchscreen with IP66-rated front panel, die-cast aluminum alloy front bezel, and 100 x 100 VESA mount kit. TPC-155H has been C1D2 certified for the applications in hazardous environments. Moreover, with the provision of a full-size mini PCIe slot that supports mSATA signals and Advantech's iDoor technology, TPC-155H can be easily expanded to provide additional I/O ports, isolated digital I/O, fieldbus protocols, MRAM, and 3G/GPS/GPRS/Wi-Fi communication capabilities.

Specifications

General

- **BIOS** — AMI UEFI
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 383.2 x 307.3 x 55.9 mm (15.09 x 12.10 x 2.2 in)
- **Enclosure** — Front bezel: Die-cast aluminum alloy / Back housing: SECC
- **Mount Options** — Desktop/wall/panel
- **OS Support** — Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSB
- **Power Consumption** — 50.8W (typical)
- **Power Input** — 24 V_{DC} +/- 20%
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 4.4 kg (9.7 lb)

System Hardware

- **CPU** — Intel® Atom™ E3845, 1.91 GHz, quad core
- **Memory** — 1 x SODIMM with 4 GB DDR3L SDRAM (up to 8 GB)
- **LAN** — 2 x Intel® I210; 10/100/1000 BASE-T
- **Expansion Slots** — 1 x Full-size mini PCIe with mSATA support
- **Storage** — 1 x 2.5" SATA SSD, default 64 GB SSD
- **I/O** — 1 x RS-232
  1 x RS-232/422/485
  1 x USB 3.0
  3 x USB 2.0
  1 x iDoor slot

LCD

- **Display Type** — XGA TFT LED LCD
- **Display Size** — 15"
- **Max. Resolution** — 1024 x 768
- **Max. Colors** — 16.2M
- **Luminance** — 300 cd/m²
- **Viewing Angle (H/V°)** — 176/176
- **Backlight Life** — 70,000 hr
- **Contrast Ratio** — 2000:1

Touchscreen

- **Lifespan** — 36 million touches at a single point
- **Light Transmission** — Above 75%
- **Resolution** — Linearity
- **Type** — 5-wire analog resistive

Environment

- **Humidity** — 95% RH @ 40 °C, non-condensing
- **Ingress Protection** — IP66-rated front panel
- **Operating Temperature** — -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** — -30 ~ 70 °C (-22 ~ 158 °F)
- **Vibration Protection** — With SSD: 1 Grms (5 ~ 500 Hz) (operating, random vibration)
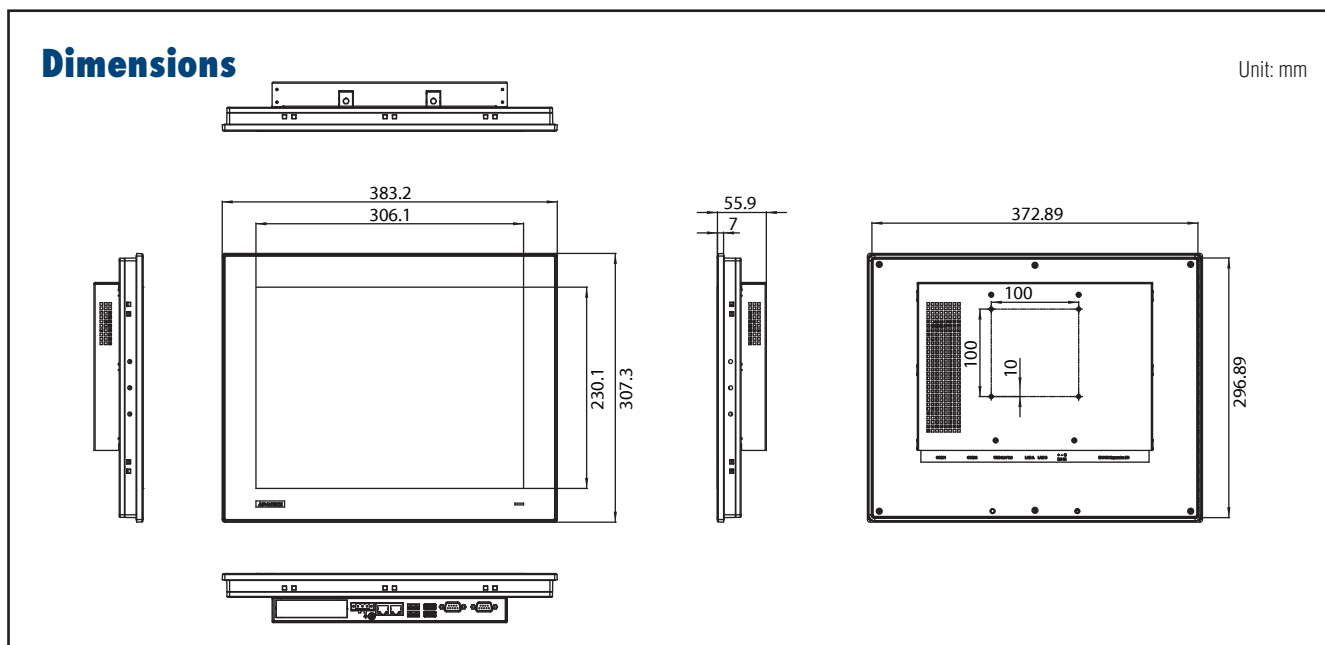
Rear View

A. HDD/SSD bay
B. iDoor slot
C. RS-232
D. RS-232/422/485
E. USB 2.0 and 3.0
F. LAN (10/100/1000)
G. Power input
H. Antenna port

Ordering Information

- **TPC--155H-E3BE** — 15" XGA panel PC with Intel® Atom™ E3845, 1.91 GHz quad-core CPU, 4 GB DDR3L SDRAM, 64 GB SSD, and true-flat touchscreen, UL C1D2 certified

Dimensions

Unit: mm

383.2
306.1
230.1
307.3
55.9
7
372.89
100
100
10
296.89

Optional Accessories

- **PWR-247-DE** — 60 W, 24 VDC /2.5A power supply
- **1702002600** — Power cable (US) 1.8 M
- **1702002605** — Power cable (EU) 1.8 M
- **1702031801** — Power cable (UK) 1.8 M
- **1700000596-11** — Power cable (China/Australia) 1.8 M

iDoor Modules

- **PCM-26D2CA-AE** — SJA1000 CANbus module with CANopen and 2 x DB9
- **PCM-26D1DB-MAE** — Hilscher netX100 fieldbus module with PROFIBUS and 1 x DB9
- **PCM-27D24DI-AE** — Digital I/O module with 16 DI/8 DO, isolation protection, and 1 x DB37
- **PCM-24D2R4-BE** — OXPCIe-952 UART with isolated RS-422/485 and 2 x DB9
- **PCM-24D2R2-BE** — OXPCIe-952 UART with isolated RS-232 and 2 x DB9
- **PCM-24R2GL-AE** — 2-Port GigaLAN Intel® i350 PCIe mini card
- **PCM-24R1TP-AE** — Intel® 82574L, GbE, IEEE 1588 PTP, 1 x RJ45
- **PCM-262R2EC-MAE** — Hilscher netX100 fieldbus mPCIe with EtherCAT, 2 x RJ45, Master
- **PCM-27J3AU-AE** — 3-Port audio stereo with mPCIe and 3.5-mm jack
- **PCM-29R1TX-AE** — 1-Port iLink(TX) long-distance display transmitter with RJ45

Embedded OS

- **20703WE7PS0027** — TPC-xx51T(B) WS7P x86 MUI Image V4.19
- **20703WE7PS0028** — TPC-xx51T(B) WS7P x64 MUI Image V4.19
- **20703WX9ES0001** — TPC-xx51T(B) Win10 x64 LTSC v6.04 B012 Entry (2019)

Application Software

WebAccess/SCADA	Advantech WebAccess/SCADA is a 100% browser-based IIoT software platform aimed at supervisory control and data acquisition (SCADA) operations. WebAccess/SCADA provides open interfaces that allow our customers and partners to develop unique IoT applications for different vertical markets. In addition to supporting traditional SCADA functions, the platform features an HTML5-based user interface and intelligent dashboard to facilitate cross-platform, cross-browser data analysis. Moreover, WebAccess/SCADA not only offers built-in widgets, but is also equipped with an innovative Widget Builder that enables customers to build their own widgets.
WebAccess/HMI	Advantech WebAccess/HMI is human-machine interface (HMI) software based on Microsoft's Windows operating system. This software features excellent communication and monitoring capabilities, supports more than 350 PLC communication protocols, and offers a wide choice of screen design objects to satisfy diverse automation applications and HMI monitoring requirements.

Packing List

Item	Part No.	Description	Qty
Grounding cable	1703011001-11	A Cable G-TEM 4.3 100CM C=GR/Y	1pcs
Plug-In Block	1656303100	HOUSING 5.08MM 3P 90D(M) 2ESDVM-03P	1pcs
Manual	2003T51B00	User manual SC for TPC-xx51 B 1st ed	1pcs
Warranty	2190000902	CARDBOARD-WARRANTY REV. A0	1pcs
VESA Screw	1930005204	Screw M4x10L R/S DH=6.8x2.50 + ST ZBK PL	4pcs
M-SATA&WIFI Screw	1930000198	Screw M2x4L F/S D=4.3 H=0.8 (1+) ST Ni NK	3pcs
HDD Screw	19330304A0	Screw M3*4L RF/S D=6.9 H=1.9 + ST Ni NK	4pcs
Idoor Screw	1930002161	Screw M3x4.0(10.0)L R/S D=5.3 H=2 2+ ST BZn	2pcs
HDD WASHER	1990032871S000	Transistor Washer_Safety 1T TW-39 for PPC-3100	4pcs
Clamp	1962055040	CLAMPER PPC-55 M1632611 A0	8pcs
Clamp Screw	1935042520	Screw M4x25L R/S D=8.3 H=2.5 (2+) ST BZn	8pcs
China RoHS	202KAKMC00	China rohs for AKMC model name 1st ed	1pcs

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.

Last updated: 16-Jan-2023